

WHAT IS CLAIMED IS:

1. A method for fabricating a capacitor in a semiconductor

5 device, the method comprising the steps of:

forming an interlayer insulating film on a semiconductor substrate, which includes a first contact hole exposing a certain portion of the substrate;

forming a storage node plug filling the first contact
10 hole;

forming a first insulating film, a first silicon nitride film, and a second insulating film sequentially above the substrate inclusive of the storage node plug;

forming a second contact hole that exposes the storage
15 node plug by removing the second insulating film, the first silicon nitride film, and the first insulating film partly;

forming a recessed portion at side surfaces of the second contact hole by wet-etching the first insulating film remained in the second contact hole;

20 forming a storage node electrode of the capacitor, which is connected to the storage node plug, by filling the second contact hole inclusive of the recessed portion;

removing the remained second insulating film; and

forming a dielectric film and a plate electrode

sequentially on the entire surface of the storage node electrode structure.

2. The method as claimed in claim 1, further comprising a step of forming a second silicon nitride film above the
5 resultant substrate inclusive of the first contact hole, before forming the first insulating film.

3. The method as claimed in claim 1, wherein the first insulating film has an etching rate faster than that of the
10 first silicon nitride film.

4. The method as claimed in claim 3, wherein the first insulating film comprises a BSPG film.

15 5. The method as claimed in claim 1, wherein the second insulating film is formed to a thickness of 10000 ~ 20000Å.

6. The method as claimed in claim 1, wherein the second insulating film comprises a PSG film.

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7. The method as claimed in claim 1, wherein the recessed portion of the storage node electrode has a broader width than that of any other portion of the storage node electrode.